

REMARKS

Claims 11-23 are all the claims pending in the application. Claims 11-19 stand rejected upon informalities. Claims 11, 13, and 16-18 stand rejected on prior art grounds. Applicants respectfully traverse these objections/rejections based on the following discussion.

I. The 35 U.S.C. §112, First Paragraph, Rejection

Claims 11-19 stand rejected under 35 U.S.C. §112, second paragraph. In order to overcome this rejection, "transistor" has been modified to "capacitor" in all independent claims. Further, the dependency of claim 13 has been changed to eliminate antecedent basis issues. Claim 16 has been canceled as being redundant. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. The Prior Art Rejections

Claims 11, 13, and 16-18 stand rejected under 35 U.S.C. §102 (e) as being anticipated by Moriwaki et al. (U.S. Patent No. 6,333,223). Applicants respectfully traverse this rejection because Moriwaki does not disclose utilizing sacrificial gate structures as defined by independent claim 11.

More specifically, independent claim 11 specifies that, after the first metal layer is

10/787,487

covered with an insulator, the method forms "a second metal layer over said insulator and in voids left by said removing of said sacrificial gate structures." This is illustrated in Applicants' Figure 5 where the sacrificial gate structures 1100 are removed to create voids 2100 which are subsequently filled with a conductor 2800 in Figure 10. With the invention, the structure maintains a substantially planar structure, which allows the metal layer 2800 to completely form the upper plates, gates and source contact. Without the inventive processing, the metal layer 2800 would have an irregular (non-planar) shape, as shown in FIG. 12. The structure shown in FIG. 12 would have reduced yield because the contacts, capacitor plates, etc. would not form electrical connections as reliably as the inventive structure would. Therefore, the inventive structure/method has substantially higher yield and higher reliability when compared to conventional structures.

To the contrary, Moriwaki does not utilize sacrificial gate structures. Instead, Moriwaki simply patterns the first metal layer 303 and then removes one of the metallic gates 303B to create an opening 311 in which the second metal layer 314 is deposited. As shown in Figure 8a of Moriwaki a mask 309 is utilized when removing one portion of the first metal layer 303B. This processing may result in an irregular (non-planar) shape, such as that shown in Applicants' Figure 12. As mentioned above, the irregular shaped shown in Applicants' Figure 12 may reduce yield. The inventive methodology that utilizes the sacrificial gate structures avoids this irregular topography and therefore reduces defects and increases yield when compared to the methodology described in Moriwaki.

Thus, as shown above, it is Applicants' position that Moriwaki does not disclose a method

10/787,487

that, after the first metal layer is covered with an insulator, forms "a second metal layer over said insulator and in voids left by said removing of said sacrificial gate structures." The inventive structure/method has substantially higher yield and higher reliability when compared to conventional structures/methodologies, such as those discussed in Moriwaki. Therefore, Moriwaki does not disclose the methodology defined by independent claim 11 and it is Applicants' position that independent claim 11 is not anticipated by Moriwaki. Further, Applicants submit that dependent claims 16-18 are similarly not anticipated by the prior art of record because such claims depended from a non-anticipated independent claim and because of the additional features these claims define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. Formal Matters and Conclusion

In view of the foregoing, Applicants submit that claims 11-15 and 17-23, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

10/787,487

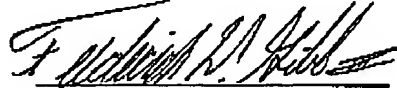
Please charge any deficiencies and credit any overpayments to Attorney's Deposit

Account Number 50-0510.

Respectfully submitted,

Dated:

9-29-05



Frederick W. Gibb, III, Esq.

Registration No. 37,629

Gibb I.P. Law Firm, LLC
2568-A Riva Road
Suite 304
Annapolis, MD 21401
(301) 261-8071
Customer Number: 29154

10/787,487